CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
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A029 Great Basin Spadefoot Spea intermontana
Family: Pelobatidae Order: Anura Class: Amphibia

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The Great Basin spadefoot is uncommon to common in California east of the Sierra-Cascade crest from the Oregon border south to Inyo Co. Spadefoot toads are associated with temporary or permanent water in pine-juniper, montane riparian, sagebrush, bitterbrush, and alkali scrub habitats, and meadows, fresh emergent wetland, riverine and lacustrine habitats. Ranges up to 2700 m (9000 ft) in elevation in the Bodie Hills.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Adults feed on ground-dwelling insects and arthropods. Tadpoles feed on plankton, algae, organic debris, and small plants. Some larvae may become cannibalistic, and they may increase developmental rate in response to evaporation of temporary pools (Bragg 1965).

Cover: Spadefoot toads use the burrows of rodents or excavate their own burrows with horny tubercles on the hindlegs. These burrows reach a depth of 35 to 45 cm (14 to 18 in) in sand (Stebbins 1954, Bragg 1965, Mayhew 1968).

Reproduction: Still to slow-moving temporary or permanent water is required for breeding, eggs, and tadpoles (Stebbins 1954, Bragg 1965).

Water: Water is consumed, or can be absorbed, through the skin in moist sand (Mayhew 1968).

Pattern: Temporary or permanent water sources within the habitats are required.

SPECIES LIFE HISTORY

Activity Patterns: Adult Great Basin spadefoots are active diurnally in early morning, late afternoon, and nocturnally from May to October (Linsdale 193 Stebbins 1954). Spadefoots may be more active following rains, especially when associated with springs or permanent water (Stebbins 1954). During periods of dormancy, toads remain buried in sand and may secrete a gelatinous coat about themselves (Stebbins 1954).

Seasonal Movements/Migration: Will move to water to breed (Linsdale 1938, Mayhew 1968).

Home Range: No data.

Territory: No data.

Reproduction: There is no definite breeding season. Breeding will take place during the active period from May to August when temperatures are warm and water is available (Wright and Wright 1949, Stebbins 1954, Mayhew 1968). A female may lay 300 to 500 eggs, deposited in clusters of 10 to 42 and attached to vegetation (Stebbins 1954). Eggs hatch within 36 to 48 hours after deposition and tadpoles metamorphose in 30 to 40 days. Sometimes tadpoles form aggregations, possibly to increase heat absorption and developmental rate (Mayhew 1968), or to decrease desiccation rate (Bragg 1965).

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